



## Section 404 of the Clean Water Act

# Compensatory Mitigation

*This page provides updates and background information regarding Clean Water Act Section 404 Compensatory Mitigation Requirements.*

In 2008, EPA and the U.S. Army Corps of Engineers jointly promulgated regulations revising and clarifying requirements regarding compensatory mitigation. According to these regulations, compensatory mitigation means the **restoration** (re-establishment or rehabilitation), **establishment** (creation), **enhancement**, and/or in certain circumstances **preservation** of wetlands, streams and other aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable **avoidance** and **minimization** has been achieved.

Under the regulations, there are three mechanisms for providing compensatory mitigation (listed in order of preference as established by the regulations): **mitigation banks**, **in-lieu fee programs**, and **permittee-responsible mitigation**.

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## Compensatory Mitigation Regulations

- Section 404(b)(1) Guidelines In 1980, EPA finalized regulations that constitute the substantive environmental criteria used in evaluating activities regulated under Section 404 of the Clean Water Act
  - Compensatory Mitigation for Losses of Aquatic Resources; Final Rule. In 2008, EPA and the U.S. Army Corps of Engineers, through a joint rulemaking, expanded the 404(b)(1) Guidelines to include more comprehensive standards for compensatory mitigation.
    - Background on 2008 Compensatory Mitigation Rulemaking
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## Compensatory Mitigation Guidance

- 1990 Memorandum of Agreement - Contains the policy and procedures to be used in determining the type and level of mitigation necessary to demonstrate compliance with the Section 404(b)(1) Guidelines. (Portions of this MOA that concern the type and location of compensatory mitigation are superseded by the 2008 compensatory mitigation rulemaking.)
  - Historic (no longer applicable) Guidance Documents
  - 2003 Transportation Equity Act for the 21st Century (TEA-21) Guidance (Federal Highway Administration) (PDF) (8 pp, 1.45MB)
  - 2003 Federal Aviation Administration Memorandum of Agreement to Address Aircraft-Wildlife Strikes (PDF) (28 pp, 323K)
  - 2003 Model Mitigation Plan Checklist (PDF) (8 pp, 2MB)
  - 2003 Memorandum to the Field on Adaptation of National Research Council Compensatory Mitigation Guidelines (PDF) (10 pp, 227K)
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## RIBITS (Regulatory In-lieu fee and Bank Information Tracking System)

RIBITS was developed by the U.S. Army Corps of Engineers with support from EPA and the U.S. Fish and Wildlife Service to provide better information on mitigation and conservation banking and in-lieu fee programs across the country. RIBITS allows users to access information on the types and numbers of mitigation and conservation bank and in-lieu fee program sites, associated documents, mitigation credit availability, service areas, as well information on national and local policies and procedures that affect mitigation and conservation bank and in-lieu fee program development and operation.

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## Compensatory Mitigation Factsheets

- Compensatory Mitigation Factsheet (PDF) (2 pp, 432K)
  - Mitigation Banking Factsheet
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## Compensatory Mitigation Training Resources

- Training Course for mitigation banking and In-lieu fee program Interagency Review Teams

(IRTs) [Exit](#)

- 2015 - 2016 Training Series on In-Lieu Fee Programs [Exit](#)
- 2013 - 2014 Training Series on In-Lieu Fee Programs [Exit](#)
- Association of State Wetland Managers - Stream Identification/Delineation/Mitigation Project [Exit](#)
- Compensatory Mitigation Rule Training Materials

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## Technical Resources for Stream Mitigation

- 2014 Association of State Wetland Managers (ASWM). From 2012 through 2014 ASWM conducted a series of webinars and interviews with States to document and discuss the various ways States address stream jurisdiction, identification, protection and compensation.
  - Report on State Definitions, Jurisdiction and Mitigation Requirements in State Programs for Ephemeral, Intermittent and Perennial Streams in the United States [Exit](#)
  - Webinar series discussing report topics Fall of 2012 – Summer 2014 [Exit](#)
- 2012 A Function-Based Framework for Stream Assessment & Restoration Projects, EPA 843-K-12-006 (PDF) (344 pp, 8MB) – This report lays out a framework for approaching stream assessment and restoration projects that focuses on understanding the suite of stream functions at a site in the context of what is happening in the watershed. It has been developed to:
  1. Help the restoration community understand that stream functions are interrelated and generally build on each other in a specific order, a functional hierarchy, and understand that parameters can be used to assess those functions even if some parameters are functions and others are structural measures.
  2. Place reach scale restoration projects into watershed context and recognize that site selection is as important as the reach scale activities themselves.
  3. Provide informal guidance and ideas on how regional stream assessment procedures might incorporate stream functions into debit/credit determination methods, function-based assessments and performance standards.
- 2012 UPDATED Natural Channel Design Review Checklist, EPA 843-B-12-005 (96 pp, 32MB) – This checklist and supporting document has been updated with supplementary materials and has been reformatted. It provides guidance on important items to consider when reviewing natural channel designs. It is intended to provide the reviewer with a rapid method for determining whether a project design contains an appropriate level of information for review and evaluation. Updated Excel spreadsheet version of Checklist

- 2011 Appalachian Stream Mitigation Workshop – The workshop included presentations designed to inform state and federal regulatory and resource agencies, who review, comment on and/or approve compensatory mitigation plans for surface coal mining projects in Appalachia. Additional information on the workshop, the presentation materials, and additional resources are provided.
- 2010 Stream Mitigation Protocol Compendium, EPA 843-S-12-003 (155 pp, 1MB) - This report provides a review of 32 stream assessment protocols and mitigation guidance documents in use by various federal and state government agencies nationwide. It identifies stream functions or conditions assessed, parameters or attributes measured, assessment results obtained, intensity of effort and training needed, use and source of reference condition information, and other factors potentially instructive to parties seeking to review, initiate, or modify stream assessment programs.
  - APPENDIX A (10 pp, 81K) Hydraulic Regional Curves for Selected Areas of the United States
  - PART II (79 pp, 532K) Reviews of Representative Stream Assessment and Mitigation Protocols
- 2004 Stream Mitigation Protocol Compendium, EPA 843-S-12-002 (212 pp, 1.2MB) - This document is intended as a reference that can be consulted by regulatory agencies, resource managers, and restoration ecologists in order to select, adapt, or devise stream assessment methods appropriate for impact assessment and mitigation of fluvial resources in the CWA Section 404 Program. Memorandum to the Field (2 pp, 714K)

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## Recent Compensatory Mitigation Evaluations and Reports

- The Mitigation Rule Retrospective: A Review of the 2008 Regulations Governing Compensatory Mitigation for Losses of Aquatic Resources. In November 2015, the U.S. Army Corps of Engineers and EPA released a report summarizing the progress made in implementing the 2008 Mitigation Rule, including analysis of trends in aquatic resource impacts and compensation from 2010 through 2014 and trends in mitigation banking and in-lieu-fee programs from the mid-1990s through 2014. Report Factsheet
- Watershed Approach Handbook: Improving Outcomes and Increasing Benefits Associated with Wetland and Stream Restoration Projects. [Exit](#) In September 2014, the Environmental Law Institute and The Nature Conservancy released a new handbook to advance the use of a watershed approach in the selection, design, and siting of wetland and stream restoration and protection projects, including projects required as compensatory mitigation for permitted activities.

- A Handbook for Prioritizing Wetland and Stream Restoration and Protection Using Landscape Analysis Tools. [Exit](#) In September 2013, the Environmental Law Institute released a new handbook that describes the range of tools used by wetland programs across the country to prioritize wetlands and streams for restoration and protection.
  - National Wetland Compensatory Mitigation Study Design. [Exit](#) In 2013, the Environmental Law Institute in partnership with a team of wetland scientists published a study design developed to help guide future evaluations of wetland compensatory mitigation project performance.
  - Wetlands and Stream Mitigation: A Handbook for Land Trusts. In September 2012, the Environmental Law Institute and the Land Trust Alliance released a handbook designed to provide land trusts with the tools they need to navigate the federal wetland and stream compensatory mitigation program and evaluate their engagement in the program.
  - Additional Compensatory Mitigation Evaluations and Reports since 2000
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## National Wetlands Mitigation Action Plan

On December 26, 2002, EPA and the Corps of Engineers announced the release of a comprehensive, interagency National Wetlands Mitigation Action Plan to further achievement of the goal of no net loss of wetlands. The goals and objectives of the National Mitigation Action Plan were incorporated into the 2008 Final Compensatory Mitigation Rule.

- National Mitigation Action Plan (PDF)
- National Mitigation Action Plan Factsheet (PDF)
- Stakeholder Coordination - In 1999, the Federal agencies began hosting a series of stakeholder forums to gather information and opinions on the concerns and challenges of compensatory mitigation. These forums have brought together a diverse group of individuals representing the regulated community, environmental organizations, academia, non-governmental organizations, and mitigation providers. The first forum was held in Washington, DC, in 1999, to discuss draft guidance on in-lieu-fee mitigation. The second forum was held in Baltimore, Maryland, in October 2001. This meeting helped lead to the formulation of the National Wetlands Mitigation Action Plan. The third and fourth forums were held in Portland, Oregon (July 2003) and Tampa, Florida (September 2004) to discuss progress on Action Plan tasks and solicit input on future Action Plan tasks. The fifth forum was held in Washington, DC (May, 2006) to discuss the proposed compensatory mitigation regulations.

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